

# WISCONSIN WOOD

## MARKETING BULLETIN



Published by Wisconsin Department of Natural Resources, Madison, WI 53711

January/February, 2004

### **WOOD MARKETING BULLETIN**

The Wisconsin DNR publishes the "Wisconsin Wood" marketing bulletin every two months. It serves the timber producing and wood using industries of Wisconsin by listing items: For sale - forest products, equipment and services, wanted - forest products, equipment and services; employment opportunities. There is no charge for the Bulletin or inserting items in it. Only items deemed appropriate to the timber producing and wood processing industries will be listed. Also the Bulletin will feature forest products utilization and marketing news, safety notes, coming events, new literature, tips to the industry, and listing or employment wanted or positions that are available.

If you know of someone who would like to be on the Bulletin mailing list, please ask them to send their name, address and zip code to the return address on the back page. Also, if you have items to list, send in the form or write a letter to the return address on the back page. Repeat listing of items requires a written request each time the item is to be repeated.

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### **Surviving In Today's Markets: A conference for wood product companies:**

**companies:** May 13, 2004, Radison Hotel & Conference Center, 2040 Airport Drive, Green Bay, WI

To stay competitive in today's markets, you need to be informed. This conference is designed to do just that. With the increase of global competition and government regulation, it is even more important than ever to be current with trends, technologies, and opportunities that can assist your company in being both competitive and profitable. Steve Lawser, Executive Director, Wood Component Manufacturers Association will be leading of the conference talking about "Where

*Are We At and Where Are We Going?"*. Presentation have been arranged on wood waste opportunities, financial analysis, OSHA, Permitting, WoodLink, Niche Markets. Registration is \$50 and then after May 5<sup>th</sup> it will be \$70. For additional information or to register contact **Glacierland RC&D (920) 465-3006**.

### **GLOBAL THREAT TO FORESTS POSED BY FIRE**

Fires are increasingly damaging the world's forests, destroying millions of hectares of valuable timber and other forest products every year, the United Nations' Food and Agricultural Organization (FAO) reported recently.

The uncontrolled expansion of agricultural activities and tourism, as well as the increased use of forests for recreational purposes, poses a serious risk to peoples' lives and to natural resources. The destruction of forests and infrastructure and the costs of fire-fighting are estimated at several billion dollars every year, FAO said.

FAO urged countries to involve local communities in the management and protection of their forest.

"Where people have an interest in protecting their forest resources, forest fires started by people will more or less disappear," said Mike Jurvelius, FAO Forest Fire Officer.

"Many forest ecosystems are adapted to fires, they need some fires to regenerate the natural forest," Jurvelius added. "But unfortunately, most fires are damaging, where they burn out of control."

Forest fires are one of the issues to be discussed at the XII World Forestry Congress, which will gather in Quebec City, Canada, from 21 to 28 September 2003, more than 3,000 foresters from over 120 countries. "This year's fire season has been one of the worst in recent history, in terms of loss of human life and damage to forests and infrastructure, which includes

housing, roads, bridges and telecommunication," Jurvelius said.

To date, Portugal has lost about 417,000 hectares (ha), which is a more than 300 percent increase over the average losses during the last two decades.

In France, fires have destroyed around 45,000 ha of forests so far this year, which equals a 30 percent increase compared to the 1980-2000 average.

In the Russian Federation, 23.7 million ha of forests were lost in 2003, an area almost the size of the United Kingdom. In 2002, the Federation lost 11.7 million ha.

In the United States, around 2.8 million ha of forests were destroyed by forest fires, compared to around 1.7 million ha in 2002.

However, in Canada, the losses decreased from 2.6 million ha in 2002 to around 1.5 million ha this year despite the severity of forest fires in Western Canada.

Australia has lost more than 60 million ha in this fire season, half of it started by humans. However, some 'useful' fires are necessary to manage the ecosystem in Northern Australia and have been practiced for thousands of years.

The worst fire hazard area in the world is in sub-Saharan Africa, where more than 170 million ha are burning annually. Around 170 million ha are burning annually. Around ten percent of these fires are necessary for the ecosystem.

Globally, according to the latest data available, more than 350 million ha of forests were burned in 2000. This equals the size of India.

"The extremely hot summer in Europe, the US, Canada and Australia has definitely contributed to the intensity and severity of fires," Jurvelius said. "The hotter it is, the higher the danger of fires. This not only damages forests, but also burns and destroys the topsoil and increases the risk for soil erosion and landslides."

But it is not mainly nature that causes these fires, it is people. Globally, 95 percent of all fires are caused by various

human activities. It sometimes only takes a match or a cigarette to burn down a forest, FAO said.

The main causes of fire outbreaks in rural areas are: land clearing by farmers in developed and developing countries, including shifting cultivation; the burning of residues and waste; and using fires for hunting and in honey collection to chase out the bees from the nest.

Most fires are out of control because farmers lack the skills on how to contain them, FAO said. Using forests for recreation also increases the risk of wildfires in many countries. The number of tourists camping, hiking and cooking in forests is increasing worldwide, and many are ignorant about using fire properly.

In Europe and northern Africa, migration from rural areas also contributes to forest fires. Younger people move to cities, thus the tending of forests, grazing and the collection of fuelwood often stops. Dead trees and bushes accumulate on the ground and increases the risk of fire.

In addition, many fires are caused by road construction, including the heating up of asphalt and the clearing of roadsides.

Arson, military activities and private disputes over land tenure also lead to forest fire outbreaks, FAO said.

"Countries such as Austria, Germany and Switzerland have successfully contained forest fires," Jurvelius said. "For centuries, they have run awareness campaigns educating people about the functions and values of their forest. In addition, local communities and private forest owners, care about their forests because their livelihoods depend on the forest resources."

Namibia and Mozambique, for example, have increased peoples' involvement in forest management. This was accompanied by public awareness campaigns. As a result, in Namibia the number of wildfires dropped significantly.

FAO called upon countries to share expensive fire-fighting equipment, such as aircraft, by signing agreements on mutual assistance in case of fire emergencies.

This year, Spanish firemen assisted their colleagues in Portugal with aircraft and personnel to fight the disastrous forest fires. At the instigation of FAO, the two countries had earlier renewed their cooperation agreements.

FAO advises countries on proactive fire management, collecting information on the causes of wildfires and designing national forest fire strategies.

Source: *The Northern Logger*, October 2003

### **LUMBER PRICES ON THE RISE**

A variety of factors conspired to send the price of certain lumber products skyrocketing as summer turned into fall. Plywood and OSB were among the most affected products – plywood prices have increased more than 90 percent from their 2002 levels, and OSB prices have tripled in some cases.

Any number of factors has contributed to the price spike. Among the suspected culprits are: The tariffs levied by the U.S. Commerce Department on Canadian softwood imports; Defense Department lumber purchases for construction of troop housing in Iraq; Wildfires in the West; Hurricane Isabel, with lumber used in both preparation for and rebuilding after the storm; Widespread lumber mill closings over the last few years, leaving the industry ill-equipped to handle the upswing in demand; The continuing boom in home building; Rain in the South, making it difficult to harvest timber; The *Panel Building Update*, a newsletter covering the structural insulated panel industry, reported OSB prices rising from 18 cents to 63 cents per square foot. Prices for framing lumber, such as 2x4s, have not gone up as much, but have still risen anywhere from 30 to 65 percent.

"Plywood costs have more than doubled in the past three to six months," says Dan Usedom of Roselle Building Materials in Rosele, IL. "Lumberyards can't keep these materials in stock for more than a day or two."

Source: *Frame Building News*, November 2003

### **GROWING AND SUSTAINING THE MARKET FOR WOOD**

After three years, benchmark research shows that the collective efforts of the WPN market promotion campaign is significantly improving perceptions regarding wood building materials and the abundance of North American forests. As a result, the WPN Executive Committee has requested a fourth year plan to extend the successful residential program, as well as a separate proposal to grow the market long-term in the light commercial and multi-family markets.

The core residential plan, currently under review with the Executive Committee, was

developed to continue to protect wood's share of the residential market in light of current and evolving threats. The plan places significant emphasis on positively positioning wood within the green building context, fighting back hard on wood's perceived performance shortcomings and spreading the word about the abundance and growth of North American forests. It also significantly expands the successful partnership/branding effort with Dr. Patrick Moore as the "Sensible Environmentalist."

The strategy to stimulate wood growth in the light commercial and multi-family markets was developed in response to suggestions made by U.S. and Canadian companies engaged in the softwood lumber negotiations. Many of these companies have proposed that should an agreement be reached and tariff funds are disbursed, a portion of these monies should be earmarked to fund a bilateral, long-term effort to grow the North American market for wood. To respond to this request, the WPN has developed a plan designed to double wood consumption in commercial construction within five years by targeting architects, engineers and builders with positive messaging regarding wood's attributes, as well as on-the-ground assistance in key markets to facilitate the conversion.

If you would like additional information or the latest WPN benchmark research that supports it, please don't hesitate to contact Christine Donnelly at (604) 891-1223 or [christine@woodisgood.org](mailto:christine@woodisgood.org).

Source: *Forest Products Equipment*, December 2003

### **IS ROUNDUP LOSING ITS PUNCH?**

Increased findings that weeds are developing resistance to Roundup, the world's most popular herbicide used extensively in agriculture and forestry, have some scientists urging new planting practices. The product's manufacturer says the problem is being overblown.

Roundup, whose generic name is glyphosate, has been on the market for more than 30 years. It long has been a favorite of farmers, home gardeners and forest managers because of its effectiveness in killing weeds and competing vegetation.

"Roundup Ready" crops, which have been genetically altered to tolerate the chemical, now cover much of the nation's farmland since their development in the late 1990s. They allow farmers to spray

the glyphosate herbicides widely without harming crops.

The Agriculture Department estimates that 80 percent of the 73 million acres of soybeans in the United States are Roundup Ready soybeans, and Roundup Ready cotton accounts for more than 30 percent of the 12 million acres planted. The corn variety, still new to the market, covers 11 percent of 70 million acres.

“Farmers are planting too many Roundup Ready crops,” said Stephen Powles, an expert on weed resistance at the University of Western Australia.

The herbicide is vital for food production systems in the United State and in many other parts of the world, Powles said. Should weed resistance become widespread, he said, “I think the problem will become a crisis.”

In 2000, University of Delaware scientists reported to the Weed Science Society of America, which tracks farm chemical resistance, that in some soybean fields, mare’s tail was resisting glyphosate. Since then, resistant mare’s tail has been reported in other states – Indiana, Kentucky, Maryland, New Jersey, Ohio, Arkansas, Mississippi and Tennessee.

Far more worrisome are cases in Iowa, Illinois and Missouri, where glyphosate is becoming ineffective on abundant weeds such as velvet leaf and water hemp.

Allan Felsot, an environmental toxicologist at Washington State University, said weeds naturally develop resistance to a pesticide and dismissed the idea they might be picking up a resistant gene from Roundup Ready soybeans, corn or cotton. “Any time you have a place where you’re using a strictly singular herbicide, you may end up with some resistance in some cases.”

Source: *The Northern Logger & Timber Processor*, October 2003

## **FIGHTING BACK FOR MANUFACTURING**

They call it “clustering,” and it may be a critical strategy to enable many industries to compete in a global economy. It calls for manufacturers to develop innovative business and cost-containment strategies with both their suppliers and customers, using geographic advantages as well.

For the North American composite panel industry – panel producers and distributors, along with those in the surfacing industries and the finished product manufacturers – clustering is especially important. That’s because the

rising tide of off-shore imports of both raw and finished products has impacted our industries more severely than anything else over the past few years.

The numbers are staggering. A recent survey by the American Furniture Manufacturers Association (AFMA) shows that U.S. bedroom furniture shipments fell 21 percent, net sales were down 20 percent, and operating income dropped 47 percent in the period 2000 to 2002 – and that 35,000 furniture workers lost their jobs. In the same period, imports of Chinese bedroom furniture jumped 121 percent and their share of bedroom imports rose from 26 percent to 41 percent.

From April 2002 to the same time this year, Chinese imports jumped another 62 percent, and by the end of this year China is likely to account for more than half of all bedroom imports into the United States.

This is happening thanks to a massive expansion of Chinese industrial infrastructure and technology coupled with heavy government subsidies and one of the lowest wage rates in the industrial world. In China’s non-market economy, it is estimated that some 17 million new workers enter the job market each year, encouraged by a government that many believe manipulates its currency to unfairly promote exports – at the expense of other nations’ workers and products.

A question on the table today is whether China is acting consistently with international trade law in exporting furniture to North America, or if actions by the Chinese government and industry constitute a breach of their obligations under the World Trade Organization (WTO). The American Furniture Manufacturers’ Committee for Legal Trade has an answer, and says China’s pricing is illegal. This coalition of 32 major furniture manufacturers, headed by industry icon John Bassett, president and CEO of Vaughn-Bassett Furniture, will file an “anti-dumping” action with the U.S. International Trade Commission this fall. While the committee’s initiative is limited to bedroom furniture, a successful resolution – trade duties and/or other sanctions against China- could have a ripple effect that restores industry and investor confidence and fosters more rational public policies on international trade and the domestic economy throughout North America. Coupled with this pending legal action is a growing sensitivity in Washington D.C. – both in the Bush Administration and in Congress – that trade laws are not

performing as they should in promoting free, fair and legal trade, and that some industries, notably furniture and textiles, have been placed in an unfair and untenable position.

Earlier this year AFMA initiated significant outreach to its members and on Capitol Hill, and today the bi-partisan congressional furniture Caucus is a growing advocate for legislation to support domestic manufacturers. AFMA itself has presented U.S. Commerce Secretary Evans with a set of recommendations that include a national strategy for 1) promoting innovation and investment; 2) reducing the costs of domestic production; and 3) leveling the international playing field.

The National Association of Manufacturers (NAM) has raised the bar on an even broader basis, developing briefing papers on the state of U.S. manufacturing and lobbying for legislation to invest in the U.S. workforce and the nation’s manufacturing base.

All of this is happening at a critical moment, and those of us at the Composite Panel Association are encouraged. Early this year our board of directors assessed the economic trends and what appeared to be a vacuum in both industry and governmental attention to a growing problem. We met with our congressional representatives, we sensitized our members, but we were not pleased with the inertia from those with the most at stake. Things have changed now, and domestic industries are fighting back.

What can you do? Get the word out to your federal and local representatives, to your civic groups and service clubs, and to anyone who will listen that it’s time for our political leaders to stand together in support of a strong manufacturing presence in North America, and to demand that China be held to the international rules of free, fair and legal trade.

Source: *Surfacing Solutions*, November/December 2003

## **CHANGES IN REGULATIONS ARE IN THE AIR**

By Tariq Mangrio

Proposal to remove methyl ethyl ketone (MEK) from regulation as a Hazardous Air Pollutant

The Environmental Protection Agency (EPA) has issued a proposed rule that would remove methyl ethyl ketone (MEK) from the list of Hazardous Air Pollutants (also known as List of Air Toxics) the

agency is required to regulate under the Clean Air Act.

The Clean Air Act requires the EPA to regulate 188 compounds that are listed as Hazardous Air Pollutants. The law allows EPA to consider petitions to modify the list, by adding or removing compounds. To date, EPA has removed only one pollutant, caprolactum, from this list (1996). The agency denied a petition to remove methanol from the list in 2001.

The American Chemistry Council submitted its original petition in 1996 and provided additional materials in August 1998. At that time the EPA deemed the petition sufficiently complete to support a technical review of the human health and environmental effects associated with sources emitting MEK. The EPA has been conducting the technical review since that time.

In July 1999, the EPA published a Federal Register notice announcing that the petition was complete and requesting technical information on the toxicity and health effects of MEK. EPA received fewer than 20 comments in response to this announcement.

After extensive review, EPA has concluded that potential outdoor exposures to MEK may not reasonably be anticipated to cause human health or environmental problems. EPA will allow a 90-day public comment period, following the Federal Register publication of the proposed rule. The agency will then hold a public hearing on the proposal if it receives requests within 60 days of publication. However, MEK emissions still would be reportable as part of the Toxic Release Inventory, as required by the Emergency planning and Community Right-to-Know Act of 1986 (also known as SARA 313) and the Pollution Prevention Act of 1990. In addition, MEK would continue to be regulated as a Volatile Organic Compound (VOC) because of its contribution to smog formation.

MEK is used as a solvent in the surface coating industry, specifically in manufacturing of vinyl, nitrocellulose and acrylic lacquers. The industry has been busy for formulating the product lines without MEK, relying heavily on substitution with acetone (not regulated as Hazardous Air Pollutant or even as a Volatile Organic Compound).

It will be interesting to see if the industry will revert to MEK, basically voiding all research poured into finding alternatives to formulating without MEK or keep existing lines in that and move forward with future

products to include MEK, if the proposed regulation goes into effect.

The finishing industry, in turn, was affected by the above listing of MEK as a Hazardous Air Pollutant. The most common replacement solvent acetone caused flow, leveling and cure schedule problems on the production lines. About the time when finishing industry and coatings formulators have come to learn to live with the regulation, EPA could possibly be phasing it out. Who would have thought?

OSHA update – Hearing loss is one of the leading causes of occupational illness in the United States. OSHA has recently updated their record-keeping logs and added an occupational hearing loss column to OSHA Form 300, Log of Work-Related Injuries and illnesses. In addition, OSHA has also reversed the order of two columns for days “Away from work” and “On job transfer or restriction. While it is not clear why OSHA opted for the reversal of the two columns, this could mean software updates for businesses using electronic computing for injuries and illnesses.

Beginning in January 2004, employers will be required to log hearing loss cases on OSHA form 300 and report on OSHA 300A Summary in 2005. The new form can be viewed at <http://www.osh.gov/recordkeeping/new-osh300form1-1-04.pdf>.

The new criterion, detailed under OSHA Standard 29 CFR 1904.10, requires employers to record 10-decibel shifts from an employee’s baseline hearing test when it is combined with a hearing level of 25 decibels

According to OSHA, the revised criterion will capture more hearing loss cases and that OSHA recognizes this increase and will take the changes in the record keeping rule into account when evaluating an employer’s injury and illness experience.

Leadership – key to building a safety culture – While some recent economic indicators have sparked new light for the general business outlook in the United States, the road to recovery and positive growth remains long and hard when businesses are faced with doing more with fewer resources and having to justify the results of current safety programs and prove the worthiness of new programs.

The leadership remains a key to ensure the success of any safety and health program. Leaders can install and monitor a system to ensure supervisors and managers have the skills and tools they

need to make effective changes that will benefit the organization as a whole.

Safety culture – Poor safety practices, combined with lack of involvement from company leaders, can damage morale and trust, eventually resulting in poor performance and poor profitability. While safety rules and procedures demand physical attention to the task at hand, an active supervisor and/or manager can appeal to the mental attitude of the worker by staying focused on the long-term return on safe operations. As a result, the worker will be empowered to take charge of the situation by playing safe while producing the desired results.

Studies have shown when the supervisors are involved with safety matters as much as their focus on production, the result is a highly profitable operation with zero or no accidents and a healthy workforce.

Train the trainer – An important element for building a safety culture is to provide the supervisors and team leaders with training on human behavior, effective communications, and team building. Such trainings are designed to show the value of “one” before you can tell them that the whole is greater than the sum of its parts. This will lead everyone to work together for the greater good of the company.

Safety and beyond – While the goal of building a culture of safety sounds limited, its scope is much larger and goes beyond what is perceived on the surface. A safe and healthy work environment fosters trust, open communication and management credibility and offers great rewards with a profitable operation and a fulfillment of a job well done.

Ed. Note: Tariq Mangrio is the environmental, health and safety manager at the Oklahoma-based Gemini Industries.

Source: *Wood Digest’s Finishing*, December 2003.

## **FURNITURE INDUSTRY IN TURMOIL**

By Rich Christianson

The antidumping petition filed by the American Furniture Manufacturers Committee for Legal Trade is literally tearing the furniture industry apart.

What began as a legal battle between North American and Chinese wood bedroom furniture makers, has escalated into a multi-front, all-out war. A group of major furniture retailers and Furniture Brands International, the nation’s largest home furniture manufacturer, were not only quick to condemn the petition after it

was filed Oct. 31, but have actively engaged to help try and defeat it.

Representatives of the Committee for Legal Trade and the Furniture Retail Group each say jobs in their respective industries hang in the balance of the International Trade Commission's ruling on the petition. A preliminary decision could come as early as the week of Jan. 5.

In its petition, the Committee for Legal Trade seeks the imposition of duties ranging from 158% to 440% on Chinese wood bedroom furniture. The petitioners allege that Chinese manufacturers are violating U.S. and international trade laws in selling furniture at artificially low prices and, in doing so, are deliberately attempting to steal sales and market share from domestic manufacturers. As a result of not being able to compete on an equal price footing, the petitioners claim many U.S. manufacturers have been forced to close plants, and those that remain active domestically have seen their operating profits whittled to the bone.

**Opponents' Position** – Spokesmen for the retailers who oppose the antidumping petition say they fear that if duties are imposed, furniture prices will skyrocket, retail sales will plummet and store closings and layoffs will result. Another major reason retailers oppose the petition is that many of them directly import wood bedroom furniture from China, and thus would be subject to paying antidumping duties.

The first action of the ad hoc Furniture Retailer Group was to enlist other retailers to help them persuade U.S. manufacturers not participating in the petition to oppose it. The retailers hoped they could torpedo the petition by convincing enough manufacturers to vote against it when the Department of Commerce contacted them. The petitioners had to have the support of domestic manufacturers accounting for at least 50% of U.S. wood bedroom furniture shipments, for the ITC's antidumping investigation to continue.

Furniture Brands International has a similar vested interest in fighting the antidumping petition. The company, which owns Thomasville, Broyhill, Henredon, Lane and Drexel Heritage, imports the majority of its wood bedroom furniture from overseas, and in particular from China. G.W. "Mickey" Holliman, chairman, CEO and president of the St. Louis-based company, vows to shift his company's product line sources from China to other low-wage countries like

Vietnam, Indonesia and Malaysia, if the antidumping duties are imposed.

**Petition Backlash** – As our report on page 52 of this issue notes, the tensions revolving around the controversial antidumping petition have spilled outside of the legal proceedings. At least two retailers – American Furniture Warehouse Co. and Value City Furniture – have decided to stop selling products manufactured by furniture companies that back the petition. The actions by these two retailers, and by others that are likely to follow, adds injury to insult.

Spokesmen for furniture retailers say price is not the only reason why they are purchasing more products from China at the expense of domestic sources. They say they have generally experienced a lower percentage of quality and service problems with their Chinese products than with those made in the United States.

Members of the Committee for Legal Trade refute claims that their companies' products and services are inferior and view such allegations as a smokescreen.

Regardless of which way the ITC rules, the wounds that have opened in the battle between U.S. manufacturers and retailers over the petition will be slow to heal. Even if the duties are imposed, the members of the Committee for Legal Trade will only have scored one small victory. As Holliman and others suggest, Vietnam, Malaysia and other countries are ready, willing able to pick up the slack (for more on Vietnam, see this month's cover story on page 27).

Ultimately, the only way the U.S. furniture makers are going to win their home market back is to impress price-conscious consumers that their products are a superior value in terms of quality, style, delivery and service.

As those of us who have closely watched wood furniture imports steadily climb to account for 50% of the domestic market, that's far easier said than done.

Source: *Wood & Wood Products*, December 2003

### **WOOD ADHESIVES – THE GOOD, THE BAD, AND THE GOOEY**

By Dr. Bob Wheeler

What are wood adhesives and why are they so important to our daily lives? I recently was discussing wood adhesives with Dr. Carl Eckelman from Purdue University. Dr. Eckelman, a retired forest products specialist with the Purdue Cooperative Extension Service has written

several publications on glues including a very helpful review titled: *Brief Summary of Wood Adhesives*. This survey provided assistance in developing this summary of the basics of wood adhesives.

**Adhesives:** Any substance that is capable of attaching materials together by means of surface attachment. Adhesives are characterized by their ability to bind two surfaces (adherents) together under certain conditions of temperature and pressure. The bonding of molecules of glue (adhesive) with wood results from chemical attractions between the glue and the wood surface. These attractions can be enhanced by temperature and pressure and the addition of additives that can cause a chemical reaction between the glue and the bonding surface.

Glues or adhesives have been used for thousands of years. Archaeologists have found that ancient Egyptians used adhesives more than 3500 years ago. Although there are many types of glues used today, it was not until the 1930's that synthetic polymers began to be used and replaced glues of natural origin such as blood based glues. Since World War II there has been a tremendous increase in the use of synthetic polymer glues which provide a much greater level of performance under existing conditions of moisture, durability, and strength requirements associated with the use of wood products.

Wood bonding adhesives are primarily of two distinct classes: 1) those that are based on naturally occurring sources such as animal, vegetable, blood, or casein – a major component of milk and cheese; 2) those adhesives that are based upon synthetic resins that are derived from petroleum, natural gas, coal, and other petrochemical related industries.

**Natural Adhesives** – Animal based glues – The rumors that we heard as kids that old horses were sent to the glue factory to make glue were true. Animal glues are typically made from the hides and bones of cattle, horses, and sheep. Animal glues can also be made from fish. These glues can be purchased as a powder, beads, or as a jelly. Animal based glues have several shortcomings including a relatively high cost, low moisture resistance, and can be attacked by molds and fungi.

**Vegetable or starch based glues** – These glues were made from a variety of plants including corn, potatoes, rice, and cassava. Although these glues were very popular prior to World War II and were used for making plywood, they have been largely

replaced by urea-resin adhesives. They are usually sold in powder form and must be mixed with water. Vegetable glues are characterized by having low moisture resistance, and can be attacked by molds and fungi.

Soybean and Casein – protein based vegetable glues – Soybeans are a source of protein for use in gluing. The soybean glue is able to be hot-pressed and was commonly used to make interior grade plywood. The casein glue is made from the casein curd produced from skim milk or buttermilk by allowing the milk to go sour or by adding acid to the milk. Both forms of glue are sold in dry powder form. The casein glue has a much higher moisture resistance than the soybean glues by can stain woods, is expensive, and is subject to attack by molds and fungi.

Blood based glues – Animal blood typically comes from slaughterhouse operations and is produced by evaporating the serum of whole blood. The dried blood powder is mixed with water and possibly other compounds such as lime or caustic soda and is used for hot-pressing plywood veneer. The blood based glues are superior to casein glue for moisture resistance, can be applied at lower temperatures than a hot press application, and have moderate levels of resistance to attack by micro-organisms. Today, blood based glues have been largely replaced by synthetic resin glues.

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Synthetic Resin adhesives – These glues are made from man-made polymers that have physical characteristics very similar to those for natural glues but can be tailored to meet specific wood or product needs. They are known for their ability to impart high resistance to moisture. There are generally two classes of synthetic resin glues: 1) thermosetting adhesives and 2) thermoplastic adhesives. Recent research has been focused on the development of formaldehyde replacement adhesives which share the desired characteristics of high bonding strength and resistance to moisture.

Thermosetting adhesives – These adhesives depend upon a water removal or condensation type of polymerization reaction to set up the glue. During this reaction, the glue undergoes an irreversible chemical and physical change that renders the glue insoluble. This reaction can be initiated by heat or chemicals or a combination of both. These resin adhesives all utilize formaldehyde as a common raw material. Adhesives in this category include Urea-formaldehyde, melamine formaldehyde, phenol-formaldehyde, resorcinol-formaldehyde, and phenol-resorcinol formaldehyde.

These resin adhesives are widely used today for the manufacture of many products including plywood, particleboard, paneling, laminated beams and boards, and furniture assembly. They are available in both liquid and powder forms and can be mixed with hardeners, fillers, and extenders to obtain formulations that can cure at temperatures ranging from room temperature to nearly 400° F.

Thermoplastic Resin Adhesives – These adhesives are commonly used in homes and by craftspeople. They usually occur as white liquid glues and are widely used in woodworking assembly such as for furniture assembly, and bonding plastic laminates. Characteristics of these glues include ability to set up rapidly at room temperatures, high dry strength, moderate levels of moisture resistance, thick glue lines, and poor heat resistance.

Elmer's Glue – Curious about that old standby, Elmer's Carpenter's Wood Glue, I contacted Elmer's Glue through their

Web site about the formulation for their wood glue.

Elmer's Carpenter's Wood Glue is a compounded synthetic latex-based glue. Mainly polyvinyl acetate (PVA) resin dispersed in water and some soluble polyvinyl alcohol (PVOH). PVA polymer is made from a vinyl/acetate monomer that can be manufactured from acetylene and acetic acid. Acetylene can be processed from natural gas or petroleum feedstock and acetic acid from the fermentation of alcohol. The viscosity is built in with a water-soluble thickener.

Formaldehyde Free Resin – Looking for Alternatives – The issue of formaldehyde resins causing health problems related to the release of formaldehyde and related compounds into a living environment has resulted in considerable interest in research for producing formaldehyde-free resins. I consulted with Dr. Kaichang Li, Assistant Professor from the Department of Wood Science and Engineering at Oregon State University who has been working on research with formaldehyde-free resins. He had the following comments on their research at OSU.

"It is well known that formaldehyde causes skin irritation and respiratory discomfort. Formaldehyde has been proven as a carcinogen for animals. So formaldehyde is listed as a suspected human carcinogen. Wood composites bonded with formaldehyde-based wood adhesives, especially urea-formaldehyde resins, will release formaldehyde. There are a number of environmental concerns about wood composites bonded with formaldehyde-based wood adhesives.

As far as I know, no formaldehyde-free wood adhesives except polyisocyanate are commercially used at present. Polyisocyanate has its own toxicity issue. The California Air Resource Board tried to pass a regulation last year, stating that any wood composite that can emit formaldehyde cannot be sold in California. The latest rumor is that they are changing the wording a bit because of strong oppositions from the forest products industry. There are a lot of activities going on regarding formaldehyde emission. We have new cost-competitive formaldehyde-free wood adhesives to replace UF and PF resins and we are talking with plywood mills for commercializing our new adhesives."

Source: *Under the Canopy, Forest & Forest Products Newsletter of the Cooperative Extension Service*, November 2003

## **UNIVERSAL SKILL STANDARDS WOULD UNITE EDUCATION, INDUSTRY**

By Steve Ehle

“Skill standards specify the knowledge, duties, skills and abilities required to perform successfully in the workplace.” – From a report on first Skill Standards Task Force meeting.

Without universally established and recognized skill sets and standards, trying to produce any product in any manufacturing sector in the United States is like playing football in a bowling alley; like trying to play checkers in the dark; like building a house of cards under water.

The U.S. woodworking industry is lagging behind most other manufacturing sectors – not to mention most of the highly industrialized world – when it comes to having common skill standards that would apply in manufacturing settings in Los Angeles, Miami or Three Forks, Mont.

Outside of the wood industry, skill standards for manufacturing in general have been developed by the Manufacturing Skills Standards Council. But these standards don’t specifically apply to woodworking.

Compounding the dilemma in the wood industry, there is a chasm between those who make their living fashioning products out of wood and wood-based materials and those institutions which are entrusted with preparing and training people to make these products.

Falling Behind – From academia’s point of view, educators need clearer guidelines about what skills and knowledge sets need to be taught. A multilevel skill standards system would be ideal. However, as technology and processes have changed in the industry, those same changes did not occur in the schools, particularly at the high school level. As a result, schools now produce students with skills that aren’t marketable or valued by industry.

It can’t be denied that wood industry skill standards would benefit workers, students, employers, teachers, trainers and the industry in general because these standards would clearly identify the skills and abilities that are required for a particular job. But we don’t have them.

No one would deny that many industrialized countries that have maintained their competitiveness are characterized by well-established skill standards systems. But still, we don’t have them here.

Most would agree that the absence of skill standards in the wood industry is a key missing link to developing a more competitive workforce in the United States. We’re in a global market, whether we realize it or not.

Narrowing the Gap – This gap is the result of cultural differences between the diverse world of woodworking commerce and the academic world which is charged with preparing people to operate machinery, design products, manage the finishing department, assemble finished products or order raw materials. There are exceptions, but for the most part, what is being taught in secondary and post-secondary schools and what is actually happening in the small- to medium-size shops and large factories are both technologically and culturally estranged.

Some schools are better prepared to ready students for a working life in woodworking than others. But a more common scenario has educators being forced to estimate the skills required in the wood industry.

Guesswork on the industry side doesn’t cut it any more than it does in the education sector. In an industry that is being set upon by strong foreign competition, particularly in the domestic residential furniture sector, a strong working relationship between education and industry is paramount.

There have been efforts in the past to unify the industry – or industry sectors – and adopt a set of common skill standards, but with little success. On the positive side, associations like the Architectural Woodwork Institute, the national Association of Store Fixture Manufacturers and other groups have led the way in developing and adopting quality standards for their respective sectors.

Also on the positive side, there are some forward-looking machinery suppliers and other suppliers to the industry who are providing leading-edge training opportunities to manufacturers and educators, alike. But these efforts, though exemplary, address only a small and sometimes narrow range of the wood industry spectrum. Any skill standards effort needs to be as broad and deep as the industry itself.

Developing a Plan of Attack – Overall, manufacturing skill standards in the wood industry are, for the most part, nonexistent and the academia-industry gap is not narrowing at an acceptable rate. But help may be on the way. Recently, a group of

wood industry educators, trade association officials, woodworkers, trade press and others met to address the skill standard issue. The effort is being spearheaded by the USDA-Forest Service and WoodLINKS-USA, a nationwide program with a goal of providing more and better-trained young people for the wood industry.

Those attending the conference in Princeton, W. VA, unanimously confirmed that there is a strong need to develop skill standards for the wood industry and indicated that the critical next steps should involve: • Securing broad support and participation from wood industry associations and identifying a champion to lead the initiative; • Designing a skill standards model specific to the wood manufacturing industry and taking into account relevant components of existing work on foundation skills (work ethic, good attitude, people skills, etc.), investigating the concept of a multilevel skill standards model and ensuring sufficient technical skills are identified and included; and • Developing a funding plan to cover the work that needs to be done.

It was generally agreed at the meeting that when an industry develops skill standards, it generally develops a skill standards system that is composed of four parts: 1) skill standards, 2) assessment tools, 3) curriculum, 4) Articulation agreements within education and the industry in general.

Where to Go From Here? According to a report from the Skill Standards Task Force, it is recommended that the industry be surveyed to identify those technical skills that would be required to meet the industry/s needs. Also, all of the 18 industry associations who support the effort will be asked to participate in the skill standards development project, which is expected to take two to three years to complete.

According to the task force, national skill standards should be based on the premise that those standards should: 1) Reflect technology and practice in the wood products manufacturing industry; 2) Encompass hand skills, machine skills and knowledge of materials and process; 3) Define the level of skills and knowledge that should be taught at various educational levels, including grade school or middle school, junior high school, high school, technical or community college, university of research institutions, and industry upgrade or specialized training opportunities; 4) Be specific to wood



products manufacturing and architectural millwork, NOT carpentry; 5) Make it possible for any existing woodworking education program, or any new or proposed program, to be evaluated according to these standards, as to appropriate content and level; 6) Be supported by an educational guidebook, organized in a modular form to include objectives and suggested learning activities; 7) Be universal nationwide, but allow for regional variations in application; 8) Define the training or experience necessary for the teacher or instructor to deliver a program based on these standards; 9) Provide the basic for standardized testing of skills and knowledge, leading to certification; 10) Give employers a set of guidelines to assess the skills and knowledge of current or new employees, to maximize productivity and plan for future training, as required.

Over the coming months and years, these goals may be changed or amended, but the basic mission of developing national skill standards for the wood industry will drive the entire project.

Source: *Wood Digest*, December 2003.

## **CONGRESS PASSES HEALTHY FORESTS RESTORATION ACT**

Congress has passed H.R. 1904, the Healthy Forests Restoration Act (NFRA) providing a significant step in addressing the urgent forest health crisis on federal lands. The favorable votes occurred after House and Senate negotiators agreed on final language for the bill.

Many stakeholders worked with the House and Senate to ensure the bill gives professional forester the active management tools necessary to address the forest health crisis. At the same time the legislation maintains ample opportunities for public input and guarantees environmental protection. The bill will help reduce the threat of catastrophic wildfires, control the spreading of insects and disease, encourage energy use for biomass, assist private forestland owners with conservation efforts, and more. The legislation also protects private lands from the forest health problems that originate on public lands.

The agreement between the House and Senate completes more than a year of often-tense negotiations. In the end, both

chambers broke through gridlock and passed the bill overwhelmingly. With passage, the U.S. Forest Service and the Bureau of Land Management will be authorized \$760 million annually to conduct hazardous fuels reduction treatments on up to 20 million acres of public land. At least half of the funding will be used to treat areas near homes and communities. Since this is an authorization of funding, Congress must annually appropriate the funds necessary to implement the new law.

Specifics of the Final Bill – Where projects may occur: HFRA limits lands where authorized hazardous fuels reduction projects may be implemented. The lands authorized are federal lands: 1) in the wildlife-urban interface as defined by the bill; 2) in fire condition class three in proximity to a municipal water supply system or a stream; 3) in fire condition class two located within fire regime I, II, or III in proximity to a municipal water supply system or stream; 4) impacted by windthrow or blowdown, ice storm damage, or the existence or threat of disease or insect infestation, which pose a significant threat to federal or adjacent non-federal land and where these conditions increase the risk of catastrophic wildfires; and 5) containing habitat for endangered species threatened by or benefiting from fire. The agencies may conduct similar projects on other lands but the special procedures in the new law would not be available.

Modifying procedural requirements: The new law changes requirements for environmental reviews and administrative appeals. The national environmental policy Act usually requires agencies to analyze “reasonable alternatives” to a proposed agency action. Under HFRA, agencies must consider at most only two alternatives to an authorized hazardous fuels reduction project, one of which is a “no action” alternative. For projects within 1.5 miles of homes and communities, they must consider only one. HFRA directs the USFS and BLM to hold public meetings and encourage public participation during preparation of environmental documents. The USFS must establish a pre-decision administrative review process as the “sole means” by which persons may obtain review of their objectives to a proposed authorized project.” Only those persons submitting substantive comments during the public comment period will be allowed

to seek review under the new pre-decision process.

Special protection of old growth and large trees: Projects are required to maintain, or contribute to restoring, the structure and composition of old growth wetlands according to the pre-fire suppression old growth conditions characteristic of the forest type. The HFRA directs that projects should focus on small diameter trees. Large trees will be retained in accord with the ecosystem conditions and the purposes of the new law.

Judicial Review: HFRA encourages the courts to expedite judicial review proceedings on challenges; establishes a 60-day limit on preliminary injunctions, subject to renewal; and directs the courts, when considering an injunction against an authorized project, to balance both the long-term and short-term effects of implementing the project against those of not carrying out the project. Only persons who obtained review under the new pre-decision process will be allowed to seek judicial review, and then only in the federal court district where the project was located.

Biomass: The new law focuses funding on developing facilities to use the biomass produced by authorized hazardous fuels reduction projects, as well as other projects on public lands.

Insect and Disease: The new law authorizes research opportunities on insects and disease that are damaging forest health. These provisions direct that the research results be applied on the ground.

Watershed Forestry: The new law authorizes funding for states to establish a “watershed forester” in state forestry agencies. The watershed forester will focus on monitoring and improving forestry practices with respect to water quality.

Healthy Forests Reserve Program: HFRA also establishes a healthy forest Reserve Program for private landowners. Under this program, landowners will have the option to restore forested habitats for rare and endangered species through 10-year cost-share agreements and 30-year and 99-year conservation easements.

This article reprinted with permission by American Forest and Paper Association.

Source: *Timber Bulletin*, Nov/Dec 2003

## **Coming Events**



MARCH 25-38, 2004 - NELMA CONVENTION – Boston, MA – Largest gathering of lumber manufacturers in the Northeast!

The largest gathering of lumber manufacturers in the Northeast will take place March 25-28, 2004 as members, associates and industry friends convene in Boston for the Northeastern Lumber Manufacturers' Associations (NeLMA) 71<sup>st</sup> annual meeting.

The convention program is packed with informative business sessions, member recognition programs, a manufacturers' "Contact Session" and, a daylong display by forest industry equipment and services companies on the latest technology and information.

Top-notch entertainment features the return of New England's own comedian, Bob Marley and prime theatre tickets to the Billy Joel production of *Movin' Out*.

For more information and registration details, contact the NeLMA office at (207) 829-6901 or [info@nelma.org](mailto:info@nelma.org).

APRIL 16, 2004 - **Wausau Loggers' Conference** – Promoting Professionalism in the Logging Industry at the Plaza Hotel & Suites, 201 North 17<sup>th</sup> Ave, Wausau, WI 54401, phone (715) 845-4341.

Also, APRIL 23, 2004 – Sparta Loggers' Conference at the Colonial Bowling and Banquet Center, 1415 W. Wisconsin St., Sparta, WI 54656, phone (608) 269-1806.

For more information contact FISTA (800) 551-2656,

[www.newnorth.net/fista](http://www.newnorth.net/fista).

FOREST INDUSTRY SAFETY & TRAINING ALLIANCE, INC. – 2004 SFI WORKSHOPS OFFERED:

Advanced First Aid and Rescue – June 18, Rhinelander, WI; Wisconsin's Forestry Best Management Practices (BMPS) for Water Quality – Portage, April 30, Stevens Point, May 14, Sparta, May 20, Ladysmith, June 11, Fall Creek, Sept 3, Prentice, Sept. 22, Oconto Falls, Oct 4, Wausaukee, Nov. 5, Rhinelander, Dec. 10; Hydraulics: Hose Building, Troubleshooting & Maintenance – April 19 in WI Rapids, Sept. 13 in Ladysmith, & Oct. 18 in Crandon; Insect and Disease – June 30 in Black River Falls, & Aug. 13 in Siren; Introduction to GPS/GIS – August 27 in Nenomine & Dec. 13 in Rhinelander; Introductory Computer Training – May 3 in Rhinelander, October 8 in Eau Claire & December 8 in WI Rapids; Jobsite Layout – May 5 in Hayward, June 14 in Whitehall, & September 27 in Tigerton; Threatened

and Endangered Species and Biodiversity Workshop – August 19 in Wausau and September 1 in Sparta; Utilization and Marketing of Wood Products – April 29 in Bangor; Woodland Invasive Species Identification and Control – May 7 in Fall Creek.

Registration Fee: Loggers \$20; AF& PA Member Mills \$20, all others \$40. Questions and further information contact FISTA, 3243 Golf Course Road, Rhinelander, WI 54501, phone (800) 551-2656, [www.newnorth.net/fista](http://www.newnorth.net/fista).

2004 SFI LOGGER CHAINSAW, MECHANIZED and LOG TRUCK SAFETY WORKSHOPS – Mechanized Safety – This year mechanized training will be equipment specific. FISTA has made arrangements with equipment dealers to host a day of mechanized training at their facilities. The training will be hands-on and will focus on troubleshooting and maintenance of your equipment, both processors and forwarders. The topic that will be covered are: the electrical and hydraulic systems, head maintenance, general operation, and safety issues while operating and maintaining the machines.

If you own a Ponsse, we would ask that you attend the ponsse sessions; if you own a Valmet, we ask that you attend that session, and so forth. Please register early, space will be limited!

April 26 – Nortrax – Fabtek, Monico; April 27 – Nortrax – Timberjack, Monico; May 10 – Partek – Timbco, Shawano; May 11 – Partek – Valmet, Shawano; May 17 – Ponsse – Beginner (New Owner), Rhinelander; May 21 – Ponsse – Advanced, Rhinelander.

Log Truck Driver Training – This year, FISTA will conduct Log Truck Driver Training by request on a company-by-company basis. FISTA safety trainer, Jim olive, who is also a State Certified CDL Skills Tester, will be conducting the training. Jim will: go over rules and regulations, do pre-trip inspections, discuss loader safety and operation, accompany each individual driver as they leave for the woods or mills to pick up and deliver, assess each driver's driving skills based on State laws, and his experience as a Skills Tester, discuss safety issues with the drivers, provide a check-list upon completion of the ride-along and a certificate of participation. Call FISTA @ (800) 551-2656 to set up your Log Truck Driver Training.

Chain Saw Safety – The following are some of the items that are covered during the program: Personal Protective Equipment (PPE), Body Mechanics, OSHA Regulations, The Chain Saw, Tools to Aid Safe Tree Felling, Safe Tree Felling Demonstration, Limbing, bucking, and Topping. Bring your chain saw and PPE – April 13 – Oneida Co, Rhinelander; April 22 – Monroe Co. – Sparta; May 4 – Bayfield Co., Cable; May 5 – Bayfield Co., Neillsville; May 13 – Adams Co., Adams; May 25 – Washburn Co., Spooner; May 27 – Price Co., Park Falls; June 1 – Portage Co., Stevens Point; June 8 – Ashland Co., Mellen; June 22 – Barron Co., Cameron; June 23 – Rusk Co., Ladysmith; July 13 – Marinette Co., Crivitz; July 15 – Lincoln Co., Tomahawk; July 27 – Douglas Co., Solon Springs; August 10 – Price Co., Prentice; August 17 – Chippewa Co., Bloomer; September 15 – Trempealeau Co., Whitehall; September 20 – Rusk Co., Glen Flora; October 5 – Forest Co., Crandon.

Timetable for all Chain Saw Workshops – 8:00 – Meet in Parking Lot of Training Location, 12:00 – Lunch (bring your own), 4:00 – adjourn.

The Chain Saw Safety Workshops in this brochure are open to loggers only.

If you are not a logger and would like to schedule a training session, please contact FISTA at (800) 551-2656.

Game of Logging (GOL) – If you are interested in attending any of the four levels of GOL, please call FISTA for a brochure. Those participants who complete all four levels of GOL will be exempt from safety training under SFI for 8 years.

## **Publications**

TAX RELIEF: RIGHT WHERE YOU'D LEAST EXPECT IT – Attention: CFO's, accountants, and tax advisors. Are your clients coming to you for suggestions on how to save tax dollars? There is a solution for them that even some tax experts aren't aware of. Donating excess inventory to charitable organizations.

NAEIR, The National Association for the Exchange of Industrial Resources, takes donations of new, overstock or discontinued product and redistributes that product to schools and nonprofit groups nationwide.

These materials and supplies not only benefit deserving organizations, but companies can receive an enhanced income tax deduction that could be up to

twice the cost of the goods. This option is made possible by the Internal Revenue Tax Code Section 170(e)(3).

NAEIR accepts donations of general, consumer goods such as school and office supplies, toys, games, building materials, clothing, tools, and so much more. After a donation is made, NAEIR will provide the donor with paperwork stating the donation was made to aid in filing taxes.

To get free information for your company or clients, please contact NAEIR's Corporate Relations Department at (800) 562-0955 or email [donor@naeir.org](mailto:donor@naeir.org).

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DOWELS, RODS, POLES, ¾" to 2-1/2" dia., lengths up to 16 ft. long with no splicing. Can splice poles longer. Ideal for tool handle replacements. We also make factory cart truck stakes, and replacement parts. S Wheelbarrow handles, core plugs, rewinding plugs, plywood shipping circles, pry bars, lifting sticks, paddles, many types of wood plugs, cutting sticks plus many types of custom-made wood products, made to customer's specs. For a quote contact Mark Slade at Mark Slade Manufacturing, 110 South mill St., Seymour, WI 54165-1250 or call (920) 833-6557 or Email to [DRHANDLES@NEW.RR.COM](mailto:DRHANDLES@NEW.RR.COM)

PLYWOOD, OSK, particleboard, and/or MDF cut-to-size or shape according to your specifications from high-end uses like furniture and architectural to lower grades suitable for boxes or pallet decks. Plywood blocks for pallets are also available. Contact Joe Campbell, Steel City Lumber Company, PO Box 36189, Birmingham, AL 35236, phone (800) 733-1907, Fax (205) 733-1709, Email [Joecampbel@aol.com](mailto:Joecampbel@aol.com).

CEDAR LUMBER and Cants – Paneling, fencing 4x8x8, 4x8x8, 6x6,8 or cut in the dimensions you need. Excellent cedar and great prices. Contact Billy Imhof, 5859 Cingmars Road, Littlefork, MN 56653, phone (218) 278-4417.

## Equipment

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BARK PROCESSING PLANT, Conveyor and hopper infeed; First big roller screen; Patz chain conveyor under screen; Patz inclined chain conveyor; Second roller screen with conveyor transfer; 40' Patz inclined chain conveyor; Nugget conveyor; All required electric motors, starters, switches, wiring, etc. Contact Rusch Equipment Sales, 400 Rusch Road, Antigo, WI 54409, phone (715) 627-4361, Fax (715) 627-4375.

PRENTICE STATIONERY Loader w/5<sup>th</sup> whl; Rodgers Un-nailer w/10" blades; Rip-Jac over & under pallet dismantler; Waechter band resaw; Morbark Model 640 debarker; Fastline log merchandiser; Bronco pallet stackers; Lauderdale Hamilton Super Chop pop-up trimmer; Newman chamfering machine; Cornell double arbor resaw with cut-up system; Cornell remote trim saw; Cornell cant sizer; Pendu diesel powered M5000 gang saw w/log cabin tooling; Pendu diesel powered A5000 double arbor resaw system; Pendu A4000 w/cutoff; Brewer gang saws; Wilson 4-strand unscrambler w/Corley package deck; Arasmith salvager hog w/50x50 opening; Woodpower grinder Mod T-60; Morbark waste recycler; Williams C-32 NO-Nife hog; Hempstead low speed whole pallet grinder; Keystone stake pointers. Contact Bob (484) 948-4089, FAX (610) 678-2848, email: [ramco@juno.com](mailto:ramco@juno.com).

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PORTABLE TOWER EDGER 2-14" inserted tooth blades. Power take-off drive. Asking \$2,800. Contact Emil Jensen, 987 North Ridgeview Ct., Sobieski, WI 54171, phone (920) 822-4989.

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TAYLOR – (12) SECTION MANUAL Clamp Carrier - \$3,900; Steton/Ross 24" gang rip saw, (new dip chain – cost over \$5,000), price \$9,900; Taylor 10' Clamp Carrier, (30) sections power rotation, tightening, flattening, price \$11,900; MIDA – 18" planer/surfer – top and bottom heads, price \$7,500; Mattison – straight line rip saw (glue line accurate), price \$6,500; Hauncher – 16" arbor (current set-up – box joint), price \$2,500. Contact Fred Janik, 6881 Minnick Road, Lockport, NY 14094, phone (716) 433-4224, phone and Fax after 10 a.m.

48" PRECISION CHIPPER drop feed top discharge 3 knives, \$3,000; 58" Morbark chipper horizontal feed top discharge 3 knives, \$8,000; Salem Scragg-mill 48" saws, \$1,000; 3-Saw Edger, \$1,000. Contact Sterzing Wood products, Rodney Sterzing, W7990 Cty X, Middle Inlet, WI 54114, phone (715) 854-2873 days, (715) 854-2489 evenings.

37" 2-HEAD CEMCO WIDE Belt Sander, \$5,700. Model JRF-37-75 Mfg 1982. 30 h.p. first head, 20 h.p. second head. Has electronic belt oscillation, variable speed feed belt, pro scale digital thickness gauge, amperage gauges for both heads, power table adjustment, emergency shut-down switches on front side of machine. Uses 37"x75" belts. Approximately 30 used belts included. Many good years left on this machine. It has run great for us during the 8 years we used it. For pictures go to our website [www.BerkProducts.com](http://www.BerkProducts.com). Item #SD-1002 listed under Special Deals. Berkshire Products, Inc., Sheffield, MA (413) 229-7919.

## Services

CUSTOM-DRY KILN services, located near Carlton, MN. Call for prices. Contact Dave Gimmell, Arrowhead Wood Products, 1592 Olsonville Rd, Carlton, MN 55718, phone (218) 384-3325, Fax (218) 384-3187.

A&A CUSTOM CUTTING & Flooring: custom on site sawing with a woodmizer bandmill. Also, Installation of hardwood flooring, sand, finish, your wood or mine, cedar lumber, 4x4s, cedar privacy fence, for sale. Contact Jeff Amundson, 7959 Landing Road, Eland, WI 54427, phone (715) 454-6311.

MILLS WHICH CAN produce oak car decking, can surface, perhaps drill, sound tight knotted grade. 3"x6"-10' or mix hardwoods if you can fabricate construction or industrial parts. Need drilled decking now. Call for print. Contact W. Preston Germain, Germain Lumber Co., Inc., Pittsburgh, PA 15215, phone (412) 782-3240, Fax (412) 781-2551, email: [germain@bellatlantic.net](mailto:germain@bellatlantic.net).

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##### **Forest Products**

LOG CABIN TOOLING for stake manufacturing, we also buy some 4/4 & 5/4. Call Bob (484) 948-4089, Fax (610) 678-2848, email: [ramco@juno.com](mailto:ramco@juno.com).

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VENEER LOGS, also C3S logs. Must be able to load 40' containers. Need Walnut, Cherry, Red Oak, White Oak, Ash, Hard Maple and Poplar logs. Timbers for logs homes - advise what you now make. Call me to arrange inspection. Need White Pine 6:x12"xRL. Also other sizes. Contact W. Preston Germain @ (412) 782-3240, email: [germain@bellatlantic.net](mailto:germain@bellatlantic.net).

##### **Equipment**

LOG CABIN TOOLING for Pendu saw, we are looking for late model pallet manufacturing equipment. Contact Bob (484) 948-4089, Fax (610) 678-2848, email: [ramco@juno.com](mailto:ramco@juno.com).

1968 PETTIBONE SUPER 8, Cary-Lift UC 263 International motor (carb #1370 Bendix Zenith USA. Tagon carburetor is #052898 R9. Contact Melvin Teal, Teal's Evergreens, PO Box 85, Bark River, MI 49807, phone (906) 466-9978.

FARM-SKIDDING WINCHES for 3-point hitch tractors. Various size model Farmi winches for 17-40 hp, and 60-80 hp. Also, forwarding log loading trailers, wood chippers, and carbide saw chain. Contact Dave Carlton Saw & Machine, 1592 Olsonville Rd, Carlton, MN 55718, phone (218) 384-3521, Fax (218) 384-3187.

CONSIGNMENT MACHINES WANTED, good, bad and salvage. Contact Richard Carlson, PO Box 1115, Marinette, WI 54143, phone (715) 735-7634.

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CROSS TIE BUYERS - May be retired person, call on mills near you. Quick pay mills. Take by truck or rail depending on area. Good incentive arrangement. Man who can inspect logs before shipment. Call collect to Preston Germain to discuss (412) 782-3240.

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If you wish to use the facilities of the Bulletin, forward a letter, post card or form on page 11 with detailed description of your "wanted" or "for sale" items. All forest products (stumpage, logs, pulpwood, posts, poles, trees and lumber, etc.) and services (custom sawing, custom kiln drying and tree planting, etc.) may be listed. Please be sure your full name, address (including zip code), telephone number accompany your listing, there is no cost for listing any items. If you want items repeated in the next issue, send in a written request. If you have comments about the Bulletin or have suggestions on its content, write to: Forest Products Specialist, 3911 Fish Hatchery Road, Fitchburg, WI 53711, phone (608) 231-9333 FAX (608) 275-3338.

**DEADLINE FOR ITEMS TO BE LISTED IS THE 20TH OF: FEBRUARY, APRIL, JUNE, AUGUST, OCTOBER, and DECEMBER.**



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